



When Does RCRA Apply to a CERCLA Site?

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This article provides a general overview of the applicability of the Resource Conservation and Recovery Act (RCRA) regulations to cleanups of old hazardous waste sites performed pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA codified the concept that other laws have potentially applicable or relevant and appropriate requirements (ARARs) to CERCLA cleanups. RCRA regulations become ARARs if activities at CERCLA sites involve generation, treatment, storage, or disposal of RCRA-regulated hazardous substances.

The Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) established requirements for the safe management of hazardous wastes, as defined in the statute. According to RCRA, all generators and transporters of hazardous waste, and all operators of treatment, storage, and disposal (TSD) facilities, including federal facilities, are responsible for handling and disposing of that waste as prescribed by RCRA and its implementing regulations.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund) of 1980 (42 USC 9601 et seq.) was enacted to address the problem of hazardous wastes and hazardous substances disposed of in the past, primarily before the passage of RCRA; CERCLA makes owners/operators and users of waste sites—again, including all federal facilities—responsible for the cleanup of the waste. CERCLA provides a continuation of coverage to RCRA, and the two statutes complement each other to address comprehensively the management of newly-generated hazardous wastes and the cleanup of old wastes. Although RCRA and CERCLA have some very distinct differences, the two laws frequently interact, and the trend is toward even greater interaction.

This article provides a general overview of several specific aspects of RCRA's applicability to CERCLA cleanups.

DEFINING TERMS

CERCLA addresses all types of environmental media; any type of regulated or nonregulated industrial, commercial, or noncommercial

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facility; and virtually any substance. CERCLA's scope is very broad and allows for the inclusion of other laws that apply to a site. When Congress reauthorized CERCLA through the Superfund Amendments and Reauthorization Act (SARA) of 1986 (42 USC 9601-9675), it codified the concept that the requirements of other laws are potentially applicable or relevant and appropriate. Decisions about which laws and regulations are ARARs are made on a site-by-site basis.¹ A discussion of the role of ARARs in CERCLA remedial actions is given in CERCLA's implementing regulations, the National Contingency Plan (NCP), at 40 CFR 300.430, and various EPA guidance documents. RCRA regulations become ARARs if activities at a CERCLA site involve generation, treatment, storage, or disposal of RCRA-regulated hazardous wastes.

To understand the interrelationship between RCRA and CERCLA, it is necessary to understand the following terms and definitions; these definitions are the author's versions, not the exact regulatory language (the references for these are 40 CFR 300.5 for CERCLA, and 40 CFR 260.10 for RCRA):

- A *facility* is defined as all contiguous property under the control of an owner/operator.
- *Waste* is any material that is discarded, abandoned, recycled, or used in a manner constituting disposal (except materials that are specifically exempted). Solid waste and hazardous waste are specifically called out in RCRA. For more information, see 40 CFR 261.2 and 261.3.
- A *hazardous substance* is any substance that EPA has designated for consideration under the Clean Air Act, Clean Water Act, and Toxic Substance Control Act, and any hazardous waste under RCRA. Additional substances that present a potential danger to human health and the environment (except petroleum and natural gas) may be designated as hazardous by EPA (40 CFR 300.5).
- A *pollutant or contaminant* is any other substance, not listed as a hazardous substance, that will or could be anticipated to cause any type of adverse effects in organisms or their offspring (40 CFR 300.5).
- A *release* is any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, abandonment of containers of hazardous waste or constituents, or disposing of hazardous wastes or constituents into the ground-water, surface water, air, or soil (40 CFR 300.5).

THE RCRA CONNECTION

RCRA applies to CERCLA sites in three important ways. First, if the CERCLA site being remediated is a regulated RCRA facility that is or was managing regulated hazardous wastes, the RCRA requirements will apply to those wastes during the remedial process, as well as to the closures and corrective actions of units at the facility. Second, soils and debris generated during the CERCLA remediation that meet the RCRA

soils and debris definitions under the RCRA land disposal restriction regulations in 40 CFR 268 will be subject to RCRA, as discussed below. Finally, when the CERCLA wastes are solid wastes that exhibit hazardous "characteristics" or are specifically listed as hazardous wastes pursuant to 40 CFR 261, they are RCRA hazardous wastes.

Except for the first case above, the applicability of RCRA to a CERCLA site has no direct bearing on whether the wastes were generated prior to the promulgation of RCRA. An owner of a CERCLA site at which RCRA hazardous wastes are being remediated must handle the RCRA wastes in compliance with RCRA when they are removed. In addition, listed hazardous wastes in a CERCLA site, when removed during remediation, cause the site to be an RCRA waste generator site subject to RCRA. Three key RCRA requirements significantly affecting this determination are the "mixture" rule, the "derived-from" rule, and the "contained-in" policy.

The mixture rule regulates mixtures of hazardous and nonhazardous wastes. Nonhazardous solid wastes, as defined in 40 CFR 261.2, that are mixed with listed hazardous wastes (or were when they were generated) are considered hazardous. Nonhazardous solid wastes that are or were mixed with "characteristically" hazardous wastes are considered RCRA hazardous wastes, unless the characteristic is no longer evident. Under the derived-from rule, residues from the treatment of hazardous wastes are considered hazardous wastes. The contained-in policy addresses certain materials (e.g., groundwater and, indirectly, contaminated solids) generated during CERCLA response actions that contain listed hazardous wastes. This material is to be managed as a hazardous waste if a listed constituent is detectable. As stated above, these rules apply to a CERCLA site when wastes meeting these definitions are removed from their original location for purposes of treatment, storage, and/or redisposal as part of a removal or remedial action.



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Cleanup Regulations

Regulations under CERCLA mandate that cleanup or remediation of a site attain a level of "clean" as designated by EPA and meet all applicable or relevant and appropriate requirements. ARARs are the mechanism by which EPA may apply standards from laws other than CERCLA when they are legally applicable or when they are considered relevant and appropriate. Under Section 121 of SARA (see regulations at 40 CFR 300.430), on-site removal or remediation must comply with ARARs to the maximum extent practicable. For example, if a site is remediated in place, certain treatment methods necessary for off-site disposal would not be applicable. Off-site removal and remedial actions must comply with all ARARs. Because EPA views off-site transport and disposal as the "least favored alternative," not only are such activities subject to additional, sometimes more stringent, requirements, but also facilities accepting CERCLA wastes must meet specific RCRA criteria: (1) The unit where the CERCLA wastes will be accepted cannot be releasing any hazardous waste constituent into the ground water, surface water, or

soil, and (2) every other unit at the facility must be "controlled" by an approved RCRA corrective action program. See EPA's 1986 guidance memoranda¹ for additional discussion of off-site disposal requirements.

LAND DISPOSAL RESTRICTIONS

Once the site owner has identified whether and what types of RCRA wastes are present in the CERCLA site, he/she must decide whether the RCRA land disposal restrictions (LDRs) apply. LDRs apply to all RCRA hazardous waste, and require strict treatment standards prior to land disposal. This determination is based on whether the hazardous waste (or its treatment residues) will be placed onto or into the land. All hazardous wastes placed on or in the land are subject to LDR regulations; hazardous wastes shipped off-site for disposal fall under the LDR regulations promulgated May 8, 1990.

Whether wastes remediated on-site are subject to LDRs depends on two factors: the area of contamination and placement. An area of contamination is a contiguous area of continuous contamination; however, the contamination can be varied (e.g., types, concentrations). EPA's guidance² provides several examples of areas of contamination: a waste area (e.g., pit or landfill) and a surrounding contaminated soil; a waste area and the sediments contaminated by the source (so long as the contamination is continuous), excluding contaminated groundwater and surface water; and multiple lagoons separated by dikes, where the dikes are contaminated and the lagoons share a liner.

EPA's guidance defines placement as follows: (1) wastes consolidated from many different areas of contamination into one area of contamination, (2) wastes that are moved outside an area of contamination (e.g., for storage) and are returned to the same or different area of contamination, or (3) wastes that have been excavated from an area of contamination, placed in a unit (e.g., incinerator, tank) within the same area of contamination, and replaced into the same area of contamination. EPA guidance further states that wastes treated in situ, capped in place, or processed (this includes earth-moving operations) within the area of contamination—but not in a separate unit—are not placement. Placement would activate the LDR standards if they apply to the waste, but if there is no placement, the LDRs would be incorporated only to the maximum extent feasible.

TREATMENT STANDARDS

For soil and debris that are contaminated with LDR wastes, EPA provides RCRA treatment standards for the wastes, which are found in 40 CFR 268 Subpart D. However, EPA has also allowed generators to provide best demonstrated available technologies (BDAT), especially because of the unique problems in dealing with soil and debris (complex matrices, analytical interferences, and so on). EPA asked for public comment regarding BDATs for soil and debris in the Proposed Rule for Land Disposal Restrictions for Newly Listed Wastes and Contaminated Debris.³ These rules are a draft of the final rules establishing treatment



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standards for contaminated soil and debris. (The deadline for public comment was February 24, 1992.) These rules include new treatment standards and allow for soil and debris that contain listed wastes to be classified as nonhazardous once the treatability standard for those wastes are met.

A CERCLA potentially responsible party (PRP) managing wastes that fall under the LDRs must comply with most of the RCRA regulations, including those for generators of hazardous wastes,⁴ owners/operators of treatment, storage, or disposal facilities⁵ (except the permitting requirements), the land ban notification, and other LDR requirements. Land ban notification is the notification a waste generator must provide to the TSD notifying the TSD of all land ban wastes. CERCLA allows a PRP of a site to undertake hazardous waste remediation without obtaining a permit, but imposes requirements in the areas of reporting, management, monitoring, and tracking.

One point that should be emphasized is that an owner of a CERCLA site that has hazardous wastes and sends those wastes off-site should make sure (i.e., have a record) that the treatment facility adequately treated wastes in compliance with the established treatment standards. A site owner might assume that a signed, returned manifest is sufficient, but only a verification of treatment for specific wastes will allow for tracking. Typically, this verification will be in the form of a certificate (e.g., for incinerators, a certificate of destruction).

REMEDIATION

Remedial action can be very costly to CERCLA site owners. Superfund was set up to allow the government to clean up sites if no private owner was found, but the government has been very successful at making sure that the responsible parties pay. The costs of remediation increase when the wastes at a site are identified as hazardous wastes because the related options for removal, treatment, and disposal at an off-site facility are more expensive than for nonhazardous wastes.

During the implementation of a remedial action plan, a checklist can often prevent costly mistakes. The checklist should cover all the applicable concerns, including waste identification, removal/remediation options, treatment standards, ARARs, safety and quality control of operations, and cost/risk analyses. The trend in RCRA and CERCLA regulations is that as more enforcement capability is afforded to one law, that law will be used in conjunction with the other to make the combined guidelines more stringent.

CONCLUSION

CERCLA requirements can adopt the requirements from other environmental laws so long as those requirements are considered to be applicable or relevant and appropriate. RCRA is applicable when the wastes from the site are in a regulated RCRA facility that is or was managing hazardous wastes, constitute soil and debris that meet the definition under 40 CFR 268, or are hazardous as specifically identi-



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fied by 40 CFR 261. The extent to which compliance with relevant RCRA regulations is required is then dependent on the type of wastes, where they are treated (on-site versus off-site), and the area of contamination. ♦

NOTES

1. CERCLA Off-Site Policy: Eligibility of Facilities in Assessment Monitoring, 1986 (EPA/9330.2) and CERCLA Off-Site Policy: Providing Notice to Facilities, 1986.
2. OSWER Directive 9347.3-05FS (Superfund LDR Guide #5).
3. 57 Fed. Reg. 958, January 9, 1992.
4. 40 CFR 262.
5. 40 CFR 265.